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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,545	01/05/2004	Otmar Klingler	DEAV2003/0002 US NP	2394
5487	7590	06/15/2006	EXAMINER	
ROSS J. OEHLER SANOFI-AVENTSI U.S. LLC 1041 ROUTE 202-206 MAIL CODE: D303A BRIDGEWATER, NJ 08807			RAO, DEEPAK R	
			ART UNIT	PAPER NUMBER
			1624	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/751,545

Applicant(s)

KLINGLER ET AL.

Examiner

Deepak Rao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This office action is in response to the amendment filed on April 5, 2006.

Claims 1-9 are pending in this application.

#### ***Withdrawn Rejections/Objections:***

Applicant is notified that any outstanding rejection/objection that is not expressly maintained in this office action has been withdrawn or rendered moot in view of applicant's amendments and/or remarks.

#### ***The following rejections are maintained:***

1. Claims 1-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,933,298.
2. Claims 1-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/700,273.

The reasons provided in the previous office action are incorporated here by reference. Applicant's request that 'these rejections be deferred pending identification of allowable subject matter' is acknowledged.

#### ***The following rejection is necessitated by the amendment and/or under new grounds:***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barvian et al., WO 02/064571. The reference teaches a generic group of pyrimidine-4,6-dicarboxylic acid diamide compounds which embraces applicant's instantly claimed compounds. See the structural formula I in page 2; the subgeneric formula III in page 4 and formula V in page 5 wherein Ar is defined as aryl or Het, unsubstituted or substituted. The reference further, provides examples of heteroaryl groups included within the recitation of Het in page 10, including pyridyl, furanyl, indolyl, .... benzo-2,1,3-thiadiazole, etc. The reference specifically discloses compounds wherein the Het is benzo-2,1,3-thiadiazole, see the compound disclosed in page 5, lines 27-28 and page 6, lines 1-2 (structural formulae were depicted in page 10 of the previous office action). The reference teaches a process to prepare the compounds, see the reaction scheme in page 18. The reference compounds are taught to be useful as pharmaceutical therapeutic agents having MMP-13 inhibitor activity, see the abstract. The instant claims differ from the reference compounds by reciting a more limited subgenus than the reference, for example, the instant claims recite specific heterocycles as represented by the term Het; or the instant claims recite specific substituent R<sup>11</sup> for the aryl group. The reference generically teaches substituents such as T(CH<sub>2</sub>)<sub>m</sub>CO<sub>2</sub>R<sup>4</sup> for the aryl groups, which substituents are analogous to the substituent groups recited for R<sup>11</sup> in the instant claims. Further, the reference defines the term Heteroaryl to include heterocycles such as pyridyl, furanyl, ... benzo-2,1,3-thiadiazolyl, etc. (see page 10). Thus, the reference teaches the equivalency of various substituent groups as these are taught to be alternatives. It would have been obvious to one having ordinary skill in the art at the time of the invention to select any of the substituent groups of the genus taught by the reference, including those instantly claimed, because the skilled chemist would have the reasonable

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expectation that any of the species of the genus would have similar properties and, thus, the same use as taught for the genus as a whole i.e., as therapeutic agents. One of ordinary skill in the art would have been motivated to select any of the substituents from the genus in the reference to prepare the instant compounds, because the reference teaches that the substituents are equivalent as they are disclosed to alternatives and the skilled artisan would have had the reasonable expectation that such compounds would have similar properties and therefore, the same use. It has been held that a prior art disclosed genus of useful compounds is sufficient to render prima facie obvious a species falling within a genus.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Rao whose telephone number is (571) 272-0672. The examiner can normally be reached on Tuesday-Friday from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, can be reached at (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

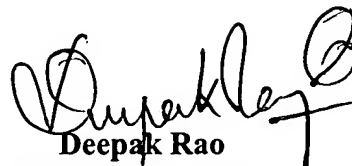
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Deepak Rao**  
**Primary Examiner**  
**Art Unit 1624**

June 13, 2006